

C. Remarks

Claims 1-26 are pending in this application, with claims 1 and 12 being independent. Claims 1, 3, 5, 6, 9, 12-14, 16, 17 and 20 have been amended to clarify the invention. Applicant submits that the amendments made herein are fully supported throughout the application as filed, and, in particular, at portions such as Figure 9; accordingly, no new matter has been added. Reconsideration of the present claims is respectfully requested.

The Examiner objected to claims 1, 6, 12 and 17 due to certain informalities. Applicant's amendment of claims 1 and 12 to replace "a printing element array" with --at least two printing element arrays-- and amendment of claims 6 and 17 to remove the reference to the decoder circuit fully address each of the Examiner's informality concerns. Accordingly, Applicant respectfully requests removal of the objections to claims 1, 6, 12 and 17.

Claims 1-26 stand rejected under 35 U.S.C. §102 (e) as being anticipated by Fujii (U.S. Patent No. 6,729,708). Applicant respectfully traverses this rejection.

The present invention is directed to a printhead substrate (independent claim 1), as well as to a printhead (independent claim 12). The key features of both the printhead substrate and the printhead are the same. More specifically, each has at least two printing element arrays, each having a plurality of printing elements disposed in an area between at least two of a plurality of ink supply channels. In addition, both the printhead substrate and the printhead possess a drive control circuit, disposed outside the area, for controlling the driving of the at least two printing element arrays and a shared wiring portion, disposed in the area, for providing a signal making each of the printing elements of the at least two

printing element arrays provided corresponding to the plurality of ink supply channels drivable. By virtue of these features, a printhead substrate (or ultimately a printhead) of reduced size can be achieved since it is possible to reduce the number of signal wirings as compared to a case where a separate drive control circuit is provided corresponding to each of a plurality of ink supply channels.

On the other hand, Fujii merely discloses a configuration in which element arrays are provided on both sides of a single ink supply opening (see Figs. 6 and 11 of Fujii). A plurality of ink supply channels simply are not provided on Fujii's printhead. The Examiner alleges that Fujii discloses multiple ink supply channels (at col. 12, line 20). However, contrary to the Examiner's position, the liquid channels disclosed therein merely indicate electrothermal transducers. These correspond to ink flow paths, as shown in Fig. 3 (reference numerals 301C, 301M and 301Y) of the present application. An electrothermal transducer (heater) is provided in each ink flow path. According to the disclosure of the present application, ink supply channels as claimed are as indicated by reference numerals 2C, 2M and 2Y in Fig. 6 of the present application. Thus, the Examiner's application of Fujii to the presently claimed features is mistaken. Furthermore, since Fujii does not disclose a plurality of ink supply channels, Fujii could not possibly disclose or suggest a shared wiring portion disposed in an area between at least two of a plurality of ink supply channels.

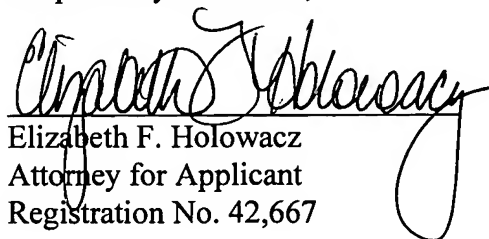
In sum, Fujii fails to disclose or suggest at least several key features of the present invention, namely a plurality of ink supply channels and the provision of a shared wiring portion disposed in an area between at least two of such ink supply channels. As a result, the benefits of the presently claimed printhead substrate and printhead, i.e., reduced

size, would not be achieved through the teachings of Fujii. Accordingly, Applicant submits that the present invention is not obvious in view of Fujii and respectfully requests that the §103 rejection be withdrawn.

In view of the foregoing amendments and remarks, favorable reconsideration and passage to issue of the present case is respectfully requested. Should the Examiner believe that issues remain outstanding, the Examiner is respectfully requested to contact Applicant's undersigned attorney in an effort to resolve such issues and advance the case to issue.

Applicant's undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,



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